Computer Programming Lab

COE 211

Fall 2022

Lab session: 1

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Exercise 1 - Basic week displayer

Compensation: 50% of the grade

Requirements

Write a piece of code whose job is to print out the days in a week.
* Each day of the week should be initially stored as a standalone string (e.g. `String day_1 = “Monday”;`).
* The output should be: `Monday Tuesday Wednesday Thursday Friday Saturday Sunday`

Solution

```
public class MyClass {
    public static void main(String args[]) {
      String day_1 = "Monday";
      String day_2 = "Tuesday";
      String day_3 = "Wednesday";
      String day_4 = "Thursday";
      String day_5 = "Friday";
      String day_6 = "Saturday";
      String day_7 = "Sunday";

      System.out.println(day_1 + " " + day_2 + " " + day_3 + " " +
day_4 + " " + day_5 + " " + day_6 + " " + day_7);
    }
}
```

Exercise 2 - Advanced week displayer

Compensation: 50% of the grade + 10% extra for fulfilling the bonus requirement

To allow our program to make more sense, let's create a new piece of code that also prints the days in a week.

* Each day is printed on a separate line
* There should only be one call to `System.out.println`
* The index of each day (the order of that day in the week) should also be displayed
*** You get a bonus point if the index of each day is not hard-coded, rather, computed using the + operator**
* The output should be:

```
1: Monday,
2: Tuesday,
3: Wednesday,
4: Thursday,
5: Friday,
6: Saturday,
7: Sunday.
```

Solution

Without Bonus Point

```
public class MyClass {
    public static void main(String args[]) {
      String day_1 = "Monday";
      int day_1_index = 1;

      String day_2 = "Tuesday";
      int day_2_index = 2;

      String day_3 = "Wednesday";
      int day_3_index = 3;

      String day_4 = "Thursday";
      int day_4_index = 4;

      String day_5 = "Friday";
      int day_5_index = 5;

      String day_6 = "Saturday";
      int day_6_index = 6;

      String day_7 = "Sunday";
      int day_7_index = 7;

      System.out.println(
            day_1_index + ": " + day_1 + ",\n" +
            day_2_index + ": " + day_2 + ",\n" +
            day_3_index + ": " + day_3 + ",\n" +
            day_4_index + ": " + day_4 + ",\n" +
            day_5_index + ": " + day_5 + ",\n" +
            day_6_index + ": " + day_6 + ",\n" +
            day_7_index + ": " + day_7 + ".”

      );
    }
}
```

With Bonus Point

```
public class MyClass {
    public static void main(String args[]) {
      int index = 1;

      String day_1 = "Monday";
      String day_2 = "Tuesday";
      String day_3 = "Wednesday";
      String day_4 = "Thursday";
      String day_5 = "Friday";
      String day_6 = "Saturday";
      String day_7 = "Sunday";

      System.out.println(
            index + ": " + day_1 + ",\n" +
            (index + 1) + ": " + day_2 + ",\n" +
            (index + 2) + ": " + day_3 + ",\n" +
            (index + 3) + ": " + day_4 + ",\n" +
            (index + 4) + ": " + day_5 + ",\n" +
            (index + 5) + ": " + day_6 + ",\n" +
            (index + 6) + ": " + day_7 + ".”

      );
    }
}
```

Grading

Grading starts over 100, and starts dropping in each of the following cases:

1. Code does not compile = -20%
2. Actual output differs from the expected output = -10%
3. Disregarding main requirements = -20%